Office of the Superintendent

Winn Parish School Board

POST OFFICE BOX 430
304 EAST COURT STREET

WINNFIELD, LOUISIANA 71483-0430

TELEPHONE: 318-628-6936
FAX: 318-628-2582

DATE: Nov. 28, 2004

TO: PAQ Team 5 FAX #: 973 599-8521

FROM: Jan Anyan

NUMBER OF PAGES: 27 (including this cover sheet)

MESSAGE: Please find the documentation attached. We were out of school from Nov 18 - Nov. 24. I returned to work yesterday, so I am replying as quickly as possible. I am also sending it in hard copy.

If you do not receive all pages call (318)628-6936

Fax #: (318)628-2582

~ Confidentiality Notice ~

Universal Service Administrative Company
Schools & Libraries

80 South Jefferson Road
Whippany, New Jersey 07981
Fax: 973-599-6521

FAX TRANSMISSION COVER SHEET

To:	Jan Anyan
Fax:	1-318-628-2582
Subject:	Application 427753
From:	PIATeam5
Date:	November 19, 2004
Time:	9:50:13 AM

YOU SHOULD RECEIVE 2 PAGE(S), INCLUDING THIS COVER SHEET. IF YOU DO NOT RECEIVE ALL THE PAGES, PLEASE CALL THE CONTACT SPECIFIED BELOW.

Ms. Anyan,

2ND REQUEST

It is important that we receive all of the information requested so the PIA team can complete its review. Failure to do so may result in a reduction or denial of funding.

You are being given an additional seven calendar days to respond. If we do not receive the requested information within seven calendar days, your application will be reviewed using the information currently on file. If you need additional time to prepare your response, please let me know as soon as possible.

Ms. Anyan,

Regarding the Internet Access by Nexus Systems for 8,561.00 - Please provide the Vendor documentation used to establish this request. Also pleas provide the components of the bundled service (IE: GroupWise, desktop, ZEN works, Bordermanager etc).

If you have any questions please feel free to contact me.

Please keep in mind that by program rules we require a response within 7 calendar days.

Best Regards,

Kenneth Stibitz

Schools and Libraries Division

Program Integrity Assurance

Voice: 973-884-8331

Fax: 973-599-6521

kstibit@sl.universalservice.org

USAC

80 South Jefferson Road
Whippany, New Jersey 07981
Fax: 973-599-6521

Universal Service Administrative Company
Schools & Libraries

FAX TRANSMISSION COVER SHEET

To:	Jan Anyan
Fax:	1-318-628-2582
Subject:	Applicaiton 432855 - 2nd 7 days
From:	PIATeam5
Date:	November 19, 2004
Time:	10:32:48 AM

YOU SHOULD RECEIVE 3 PAGE(S), INCLUDING THIS COVER SHEET. IF YOU DO NOT RECEIVE ALL THE PAGES, PLEASE CALL THE CONTACT SPECIFIED BELOW.

Ms. Anyan,

2ND REQUEST

It is important that we receive all of the information requested so the PIA team can complete its review. Failure to do so may result in a reduction or denial of funding.

You are being given an additional seven calendar days to respond. If we do not receive the requested information within seven calendar days, your application will be reviewed using the information currently on file. If you need additional time to prepare your response, please let me know as soon as possible.

Please note that the above relates to the non-reply to question / request #1 regarding the Activity Directory. Also regarding your reply to question / request #2 please supply copies of the original contract and the extension agreement as requested.

Ms. Anyan,

Regrading the above application - please see the following questions:

1) Your reply to the server usage included AD (Activity Directory), as such will the server be used for authentication only or will it be used for the distribution of application software? If used for distribution of application software, please cost allocate the amount associated with this function / server.

2) Regarding FRN 1204974 please review and complete the following:

Based upon review of your Form 471 application, it appears that FRN 1204974 has the same contract number as Funding Year 2003 FRN 1049299, and the Contract Expiration Date submitted in Block 5, Item 20, has changed from 06/30/2004 to 06/30/2005. The rules of this support mechanism require that a new Form 470 be posted for 28-Days prior to extending the existing contract, unless the establishing Form 470 for the original contract made all potential bidders aware of your ability to extend the contract beyond its initial term.
Please answer the following question, and provide the requested documentation as indicated:

Please provide a copy of the contract, and any applicable contract extensions.

Did the Contract Expiration Date change from what was reported on FRN 1049299 on Funding Year 2003 Form 471 application number 372981?

If so, please provide the 15-digit Form 470 that established the bidding for the contract extension. The establishing Form 470 is the specific Form 470, which was posted for that particular service for 28 days, and pursuant to which a contract was signed, extended, or an agreement was entered into. The establishing 470 could have been posted by the State, if the requested

services are being purchased off of a State Master Contract. If your contract extension was not posted for 28-Days to a new Form 470, please indicate such.

If the contract extension was not posted to a new Form 470 for 28-Days, please provide any relevant bid information, such as a copy of the request for proposals (RFP), that was relied upon when the original contract was competitively bid and signed.

If you have any questions please feel free to contact me.

Please keep in mind that by program rules we require a response within 7 calendar days.

Best Regards,

Kenneth Stibitz

Schools and Libraries Division

Program Integrity Assurance

Voice: 973-884-8331

Fax: 973-599-6521

kstibit@sl.universalservice.org

WPSB

Applicant Name Winn Parish School Board

ITEM 21 ATTACHMENT

Attachment Number 1

Billed Entity Number 139353

471 Application Number 368230

FRN Number	SPIN	Vendor	Quantity	Description of Product or Service	Unit Cost	Extended Cost	
						Recurring	Non Recurring
1202868	143027251	Nexus	12	Wireless Internet Access with Bundle	8,561.00	102732	0

SEND TECHNOLOGIES
PROPOSAL OPTIONS
Winn Parish School District
January 27, 2002

EXECUCTIVE SUMMARY

SEND Technologies proposes to provide Internet access services under a high speed wireless lease option. As a secondary option, SEND Technologies will provide Internet access with T1 connection to schools. Connection to ISP services under the T1 option will be direct links to the ISP or T1 links from schools to the Central Office and an aggregated 3 Mbit link between the Central Office and the ISP. Costs and terms for all options are shown under the costs section of the proposal. Under any option selected, ISP services will provide functions as outlined in the proposal.

SEND Technologies offers a secondary proposal for consideration to provide onsite maintenance services beyond ISP support. The proposal is intended to provide supplemental support for existing district personnel. Please note the onsite maintenance service proposal is independent of proposed ISP services.

Three options are available for configuration of Internet Service. The district may elect to provide Internet service with T1 links under two options or with a wireless option. Any option provides advantages and disadvantages.

OPTION PLAN "A" – High Speed Wireless Configuration

The district may elect for each school to connect from the school to the District Central Office with an 11 Mbit wireless link and connect from the Central Office to the ISP with a 72 Mbit wireless link. Key points of the option are:

- Any failure between the school and Central Office will only affect a single school.
- Only a complete failure of 72 Mbit backhaul link can cause failure of ISP link.
- Backhaul link employs OFDM methodology for very resilient transmission.
- Backhaul link will automatically adjust downward for severe interference.
- All wireless equipment is SNMP capable and will be monitored 24/7 by the ISP.
- Tower equipment is required at all sites; tower and equipment can only be leased.
- Wireless equipment is required at all sites; equipment can only be leased.
- Central routing equipment and programming at the district is required.
- High bandwidth Internet dependent services such as video conferencing or ASP services are available over the 72 MBit link with virtually no bandwidth limitations.
- Very high speed networking between schools, Central Office, and Internet.
- Existing T1 service and equipment can be re-deployed at any time if desired.
- ISP services all route through the Central Office.

Nexus System, Inc.
P. O. Box 2375
West Monroe, LA 71294-2375
Phone # 318-651-8282
Fax # 318-998-6953

Invoice

Date	Invoice #
8/10/2004	1026

Bill To

Winn Parish School District
304 E. Court St.
Winnfield, LA 71483
Attn: Jan Anyan

P.O. No.	Terms	Project
	Due upon receipt	

Quantity	Description	Rate	Amount
2	Winn - ISP Service Charges: $4,290.00 per month billed @ 18% with 82% billed to SLD	772.20	1,544.40
	YEAR 7: 2004-05		
	471: 427753 FRN: 1202868		
	Internet: July & August 2004		

Jan Anyan

Vendor #- 18255 Inv #- 1026
Inv Amt- 1,544.00 Inv Date- 8-10-04
Due Date- 8-13-04 P/O #-
G/L #- 001 610 1100.01
Message-

Total $1,544.40

Please make check payable to Nexus Systems, Inc.

Nexus System, Inc.
P. O. Box 2375
West Monroe, LA 71294-2375
Phone # 318-651-8282
Fax # 318-998-6953

Invoice

Date	Invoice #
9/1/2004	1059

Bill To

Winn Parish School District
304 E. Court St.
Winnfield, LA 71483
Attn: Jan Anyan

P.O. No.	Terms	Project
	Due upon receipt	

Quantity	Description	Rate	Amount
1	Winn - ISP Service Charges: $4,290.00 per month billed @ 18% with 82% billed to SLD	772.20	772.20
	YEAR 7: 2004-05		
	471: 427753 FRN: 1202868		
	Internet: September 2004		

Jan Anyan

Vendor #= 18255 Inv #-1059
Inv Amt=772.20 Inv Date-9-1-04
Due Date-9-10-04 P/O #-—
G/L #-001 6101100.01
Message-

Total $772.20

Please make check payable to Nexus Systems, Inc.

Nexus System, Inc.
P. O. Box 2375
West Monroe, LA 71294-2375
Phone # 318-651-8282
Fax # 318-998-6953

Invoice

Date	Invoice #
10/1/2004	1098

Bill To

Winn Parish School District
304 E. Court St.
Winnfield, LA 71483
Attn: Jan Anyan

P.O. No.	Terms	Project
	Due upon receipt	

Quantity	Description	Rate	Amount
1	Winn - ISP Service Charges: $4,290.00 per month billed @ 18% with 82% billed to SLD	772.20	772.20
	YEAR 7: 2004-05		
	471: 427753 FRN: 1202868		
	Internet: October 2004		

Jan Anyan

Vendor #- 18255 Inv #- 1098
Inv Amt- 772.20 Inv Date- 10-1-04
Due Date- 10-8-04 P/O #-
G/L #- 001 610 1100.01
Messages

Total $772.20

Please make check payable to Nexus Systems, Inc.

- Service offered with higher costs for build-out in first year.

OPTION PLAN "A" - Plan Elements

Under the plan, each school would have an 11 Mbit link connected directly from the school to the District Central Office. An additional 72 MBit full duplex link from the District Central Office to the ISP will provide Internet services. ISP service is provided with a 6 Mbit CIR guarantee and shared access to full 45 Mbit DS3 service. The ISP service would provide leased towers, wireless radio equipment, router replacements or enhancements and other equipment at schools as required under the end-to-end networking concept. Additional serial interfaces and CSU interfaces at the District Central Office would be provided by the ISP service under the end-to-end networking concept. Timeline for implementation is 30 – 60 days from order. **The Network Feasibility Assessment (NFA) provided with this proposal is based on Plan "A".**

COSTS – OPTION PLAN "A"

The lease cost of Internet Service under this plan is as shown in the table below for the five year term. The cost will be discounted under the ERATE plan with the district paying the assumed discount rate of 20%. In addition, the district is charged $1,000.00 for Internet filtering and ineligible software and services that are not eligible under ERATE discount. The initial build out costs can be charged as a one time expense or amortized over the term of the lease. Charts for either are shown below.

If build out costs are amortized over the lease the costs are:

Winn Parish Option "A" 72 Mbit Costs Lease Cost Year 1 Cost		Option A Wireless 72MB Costs
Build-Out Cost		$0.00
Lease Cost		$110,208.84
Add BellSouth (3 Mbit)		$0.00
Total Annual First Year		$110,208.84
Build-Out Percentage		0%
District Cost	25%	**$27,552.21**
Add: Internet Filtering & Ineligible		**$1,000.00**
TOTAL DISTRICT COST		**$28,552.21**

Winn Parish Option "A" 72 Mbit Costs Lease Cost Year 2 Onward		
Lease Cost		$110,208.84
Add Internet		
Add BellSouth (3 Mbit)		$0.00
Total Annual Cost after Year 1		$110,208.84
Build-Out Percentage		0%
District Cost	25%	**$27,552.21**
Add: Internet Filtering & Ineligible		**$1,000.00**
TOTAL DISTRICT COST		**$28,552.21**

If build out costs are charged the first year, the lease costs are:

Winn Parish Option "A" 72 Mbit Costs Lease Cost Year 1 Cost		Option A Wireless 72MB Costs
Build-Out Cost		$125,522.10
Lease Cost		$78,828.32
Add BellSouth (3 Mbit)		$0.00
Total Annual First Year		$204,350.42
Build-Out Percentage		61%
District Cost	25%	**$51,087.60**
Add: Internet Filtering & Ineligible		**$1,000.00**
TOTAL DISTRICT COST		**$52,087.60**

Winn Parish Option "A" 72 Mbit Costs Lease Cost Year 2 Onward		
Lease Cost		$78,828.32
Add Internet		
Add BellSouth (3 Mbit)		$0.00
Total Annual Cost after Year 1		$78,828.32
Build-Out Percentage		0%
District Cost	25%	**$19,707.08**
Add: Internet Filtering & Ineligible		**$1,000.00**
TOTAL DISTRICT COST		**$20,707.08**

A variation of the wireless plan ("A1") is to provide wireless connections from each school site to the district office, but then provide a 3 Mbit link from the district office to the ISP. Initial costs for the option are slightly lower for the district because of the cost of the T1 links instead of high speed wireless. In contrast, however, the bandwidth provided is only 3 Mbit instead of up to 28 T1 links with the high speed wireless. **This option is provided since it will most closely match the proposal of other competitors in wireless.** Those competitors are not Internet Service Providers and cannot effectively provide high speed to the Internet. Costs for this option are shown with the build out costs amortized over the lease or charged as a cost of the first year.

If build out costs are amortized over the lease the costs are:

Winn Parish Option "A1" with 3 Mbit Lease Cost Year 1 Cost		Option A1 Wireless & Bell 3 Mbit
Build-Out Cost		$0.00
Lease Cost		$94,368.84
Add BellSouth (3 Mbit)		$8,592.00
Total Annual First Year		$102,960.84
Build-Out Percentage		0%
District Cost	25%	**$25,740.21**
Add: Internet Filtering & Ineligible		**$1,000.00**
TOTAL DISTRICT COST		**$26,740.21**

Winn Parish Option "A1" with 3 Mbit Lease Cost Year 2 Onward		
Lease Cost		$94,368.84
Add BellSouth (3 Mbit)		$8,592.00
Total Annual Cost after Year 1		$102,960.84
District Cost	25%	**$25,740.21**
Add: Internet Filtering & Ineligible		**$1,000.00**
TOTAL DISTRICT COST		**$26,740.21**

If build out costs are charged the first year, the costs are:

Winn Parish Option "A1" with 3 Mbit Lease Cost Year 1 Cost		Option A1 Wireless & Bell 3 Mbit
Build-Out Cost		$85,922.10
Lease Cost		$72,888.32
Add BellSouth (3 Mbit)		$8,592.00
Total Annual First Year		$167,402.42
Build-Out Percentage		51%
District Cost	25%	**$41,850.60**
Add: Internet Filtering & Ineligible		**$1,000.00**
TOTAL DISTRICT COST		**$42,850.60**

Winn Parish Option "A1" with 3 Mbit Lease Cost Year 2 Onward		
Lease Cost		$72,888.32
Add BellSouth (3 Mbit)		$8,592.00
Total Annual Cost after Year 1		$81,480.32
District Cost	25%	**$20,370.08**
Add: Internet Filtering & Ineligible		**$1,000.00**
TOTAL DISTRICT COST		**$21,370.08**

OPTION PLAN "B" – Direct T1 Connection From Schools to ISP

The district may elect for each school to connect directly on a T1 link to the DS3 backbone at SEND. Key points of the option are:

- Any failure will only affect a single school.
- Each school will have direct access to the DS3 backbone.
- No central routing at the district is required.
- Relatively high bandwidth Internet dependent applications such as video conferencing or ASP services are available over a T1 link.
- Existing T1 sevice can be re-deployed at any time if desired.
- District Central Office services all route through the ISP.
- School bandwidth limited to the 1.54 Mbit of T1.

OPTION PLAN "B" - Plan Elements

Under the plan, each school would have a T1 link connected directly from the school to the ISP. Existing routers would be employed. The ISP service would provide a leased T1 CSU and serial interface as required under the end-to-end networking concept. **Timeline for implementation is current as this option is currently in place under contract.**

OPTION PLAN "C" – T1 Lines in Aggregated Star Configuration

The district may elect for each school to connect from the school to the District Central Office with a 3 Mbit link from the Central Office to the ISP. Key points of the option are:

- Any failure between the school and Central Office will only affect a single school.
- Only a failure of both links in the 3 Mbit link would cause failure of ISP link.
- Central routing equipment and programming at the district is required, but can be provided under ISP lease.
- High bandwidth Internet dependent applications such as video conferencing or ASP services are available over the 3 Mbit link, but with bandwidth limitations.
- ISP services all route through the Central Office.

OPTION PLAN "C" - Plan Elements

Under the plan, each school would have a T1 link connected directly from the school to the District Central Office. An additional 3 Mbit line from the District Central Office to the ISP will provide Internet services. Leased routers, CSU's and primary switches will be provided under the lease. Timeline for implementation is approximately 30 days from BellSouth order. This option is currently in place for the district.

COSTS – OPTION PLAN "B" or "C"

The lease cost of Internet Service under Option Plan "B" or "C" is as shown below for the five year term. The cost will be discounted under the ERATE plan with the district paying the assumed discount rate of 20%. In addition, the district is charged $1,000.00 for Internet filtering and ineligible software and services that are not eligible under ERATE discount.

Build out costs for Options B or C are currently amortized over the lease. Your costs are:

Winn Parish Option "B" or "C" With 3 Mbit T1 & Internet Costs Annual Cost		Option B & C Bell T1 & 3 Mbit
Build-Out Cost		$0.00
Lease Cost		$51,480.00
Add BellSouth T1 Links	10	$42,960.00
Total Annual First Year		**$94,440.00**
Build-Out Percentage		0%
District Cost	25%	**$23,610.00**
Add: Internet Filtering & Ineligible		**$1,000.00**
TOTAL DISTRICT COST		**$24,610.00**

(There is no build out cost to consider for charge out the first year).

SUMMARY OF INTERNET COSTS – BUILDOUT AMORTIZED

Winn Parish Options & Costs Lease Cost Year 1 Cost		Option A Wireless 72MB Costs	Option A1 Wireless & (In Davish to SEND) Bell 3 Mbit	Option B & C Bell T1 & 3 Mbit
Build-Out Cost		$0.00	$0.00	$0.00
Lease Cost		$110,208.84	$94,368.84	$51,480.00
Add BellSouth (3 Mbit)		$0.00	$8,592.00	$42,960.00
Total Annual First Year		$110,208.84	$102,960.84	$94,440.00
Build-Out Percentage		0%	0%	0%
District Cost	25%	**$27,552.21**	**$25,740.21**	**$23,610.00**
Add: Internet Filtering & Ineligible		**$1,000.00**	**$1,000.00**	**$1,000.00**
TOTAL DISTRICT COST		**$28,552.21**	**$26,740.21**	**$24,610.00**

Winn Parish Option "A" 72 Mbit Costs Lease Cost Year 2 Onward				
Lease Cost		$110,208.84	$94,368.84	$51,480.00
Add Internet				$0.00
Add BellSouth (3 Mbit)		$0.00	$8,592.00	$42,960.00
Total Annual Cost after Year 1		$110,208.84	$102,960.84	$94,440.00
Build-Out Percentage		0%	0%	0%
District Cost	25%	**$27,552.21**	**$25,740.21**	**$23,610.00**
Add: Internet Filtering & Ineligible		**$1,000.00**	**$1,000.00**	**$1,000.00**
TOTAL DISTRICT COST		**$28,552.21**	**$26,740.21**	**$24,610.00**

SUMMARY OF INTERNET COSTS – BUILDOUT CHARGED YEAR 1

Winn Parish Option "A" 72 Mbit Costs Lease Cost Year 1 Cost		Option A Wireless 72MB Costs	Option A1 Wireless & Bell 3 Mbit	Option B & C Bell T1 & 3 Mbit
Build-Out Cost		$125,522.10	$85,922.10	$0.00
Lease Cost		$78,828.32	$72,888.32	$51,480.00
Add BellSouth (3 Mbit)		$0.00	$8,592.00	$42,960.00
Total Annual First Year		$204,350.42	$167,402.42	$94,440.00
Build-Out Percentage		61%	51%	0%
District Cost	25%	**$51,087.60**	**$41,850.60**	**$23,610.00**
Add: Internet Filtering & Ineligible		**$1,000.00**	**$1,000.00**	**$1,000.00**
TOTAL DISTRICT COST		**$52,087.60**	**$42,850.60**	**$24,610.00**

Winn Parish Option "A" 72 Mbit Costs Lease Cost Year 2 Onward				
Lease Cost		$78,828.32	$72,888.32	$51,480.00
Add Internet				$0.00
Add BellSouth (3 Mbit)		$0.00	$8,592.00	$42,960.00
Total Annual Cost after Year 1		$78,828.32	$81,480.32	$94,440.00
Build-Out Percentage		0%	0%	0%
District Cost	25%	**$19,707.08**	**$20,370.08**	**$23,610.00**
Add: Internet Filtering & Ineligible		**$1,000.00**	**$1,000.00**	**$1,000.00**
TOTAL DISTRICT COST		**$20,707.08**	**$21,370.08**	**$24,610.00**

RECOMMENDED OPTION(S)

SEND Technologies LLC can provide services under any of the options listed above. It is understood, however, that the district seeks very high speed Internet access in order to provide new Internet network services to students. Internet dependent services such as video conferencing, virtual classrooms, and computer based learning can saturate BellSouth T1 links very quickly. As an example, two video conferencing sessions communicating over the Internet at 30 frames/second can consume half of a T1 link. Other services offer similar bandwidth consumption. For these reasons, it is recommended that the district select Option "A" to allow the highest bandwidth available to the Internet.

TECHNICAL SUPPORT OPTION

SEND Technologies LLC can provide for technical support services to support Internal Connections within the district as allowed by the SLD. If submitted for funding by the SLD, the technician is assigned to maintenance of eligible equipment. If provided under contracted services, SEND Technologies will be responsible for all salary, benefits, travel, insurance, training and general support of the technician. The only obligation of the district will be minor allowance for working space and coordinating access to buildings. Please note that an onsite technician is proposed for Internal Connections and/or general contracting. Internet access maintenance is the responsibility of the ISP. Onsite services are a complex offering and must be weighed carefully to meet guidelines for various funding sources. We welcome the opportunity to discuss your needs.

"ONSITE" TECHNICIAL SUPPORT COSTS

Costs for options outlined above are presented in the table below. The district discount percentage may reduce the amount paid by the district, but internal connections are currently only being funded by the SLD for 90% school districts. Please note the SLD currently evaluates onsite technical support personnel costs very strictly. The district should be aware the SLD may not provide discount funding for dedicated onsite technical support personnel. The SLD will normally provide funding for maintenance contracts for eligible equipment.

Onsite Technical Support onsite costs are:

Onsite Technical Support	**One Day**	**Two Days**		
Per day 1 - 2 Days/Week	$11,700.00	$23,400.00		
	Three Days	**Four Days**	**Five Days**	
Per day 3 - 5 Days/Week	$31,200.00	$41,600.00	$52,000.00	

INTERNAL CONNECTIONS MAINTENANCE COSTS

The SLD will allow reasonable costs for a maintenance contract for eligible equipment. The following quotation provides a maintenance contract for repair and/or replacement of eligible equipment and general network wireplan maintenance. A specific list of equipment and wireplan drops must be attached for documentation purposes for SLD records.

Internal Connections maintenance costs are:

Internal Connections
Maintenance Support Contract

Number of Sites Supported		10
Cost Per Site		$3,000.00
Total Cost		$30,000.00
District Cost	25%	**$7,500.00**

GENERAL INTERNET PROPOSAL TERMS

1. Proposed term is 5 years from July 1, 2003 for Options "A" and "A1"; 3 years for "B" or "C".
2. Proposal cost is quoted on an annual basis due to fixed cost commitments from the ISP.
3. SEND Technologies and the customer are required to execute a written contract for services with contract to be included in the 471 Application. The contract will provide a disclaimer such that implementation of contract is contingent upon ERATE funding.
4. All equipment and towers are furnished under SLD guidelines for leased equipment for Internet Access. Under those guidelines, the customer may not acquire ownership of equipment. Other guidelines from the SLD may apply. SEND Technologies and the customer must comply with all such guidelines.
5. Contract may be accepted by customer and implementation begun by SEND Technologies prior to notice of ERATE funding based on express authorization by customer. In such case, SEND Technologies and customer will negotiate terms of proposal based on contingent funding by ERATE.
6. SEND Technologies will provide Service Level Agreement (SLA) commitment to guarantee satisfactory performance levels.
7. SEND Technologies will guarantee SLA performance levels for wireless solutions. In the event performance levels are not satisfactory, SEND Technologies will allow reversion to T1 services as described under the "Options B & C" at no additional cost to the customer.
8. SEND Technologies will be responsible for all tower and related installation. SEND Technologies is fully insured under Louisiana Workman's Comp and carries general liability to provide assurance of work coverage. Proof of insurance from SEND Technologies and/or any subcontractors will be furnished upon request.

9. School site towers will be assumed to be located on school property.
10. Central site tower(s) may not be on school property if other geographical location provides better functionality.

GENERAL SPECIFICATIONS FOR WIRELESS EQUIPMENT

TOWERS

The key elements to wireless implementation are tower construction, quality radio selection, professional installation and maintenance. Tower design is primarily of two types. The "guy" tower is the traditional radio tower with guy wires. The alternative is the self supporting design or the metal pole design. For the reasons discussed below, the self supporting design is preferred.

SEND Technologies will recommend deployment of the Sabre and/or Titan series self supporting tower or equivalent Pole tower configuration. The general design for the towers will be a 150 + foot Sabre ST3L at the district central location and smaller Titans at each of the school locations. Actual deployment may differ, however, based on the needs at each location. Sabre and Titan are leading brand names for towers utilized by major telcom, Internet, military, and government sites. For this application, the self supporting design is superior to traditional "guy" towers as the tower carries strength sufficient not to require supporting "guy wire" cables. The Pole tower is a variation of the self supporting configuration where the entire tower is one round steel pole that is anchored into the ground with wiring running inside the pole.

Convenience of placement is a concern in tower specification selection. The footprint of a self supporting tower is a concrete pad of 12' square or less whereas a traditional guy tower requires over 120' of coverage in order to anchor guy wires at three locations on the campus. At each of the three locations for anchoring a guy tower, there must be a sunken concrete pad and anchor mast.

Safety and liability are primary concerns of any tower construction. Self supporting towers are rated for hurricane force wind loads and secured by over 9 cubic yards of concrete and reinforcing rod. Guy towers are secured by cables that are subject to tension adjustments. Breakage of any guy wire can result in tower collapse in a school environment where hundreds of children are at risk.

Network performance is also a major concern with tower construction. Wireless transmissions are a precise alignment of radio transmitters and receivers. Wind conditions may cause considerable degradation of transmission performance if the tower torques with wind shear. Self supporting towers provide a much more stable platform with very little "twist", even during wind shear conditions. Guy towers are susceptible to wind shear torque because of the nature of cable guy wire construction.

Cost of any tower placement must be considered in light of convenience, safety, liability, and performance needs. The initial cost of self supporting towers is higher than the cost of a guy

tower. The long term cost of a self supporting tower is lower, however, as there is much less maintenance, longer life, and fewer liability concerns. For these reasons, SEND Technologies proposes to install self supporting towers or the equivalent Pole configuration as part of the leased Internet service.

WIRELESS EQUIPMENT and SERVICE

Quality of the wireless equipment is paramount to the successful implementation of a high bandwidth network. SEND Technologies proposal is based on Lucent/Avaya 2.4 GHz multipoint distribution system to provide 11 Mbit service in a minimum of three sectored zones in the district. Each school site will have compatible matched equipment.

The 72 Mbit backhauls will be performed utilizing Redline Communications or equivalent hardware and software. The systems utilize OFDM protocol modulation to provide superior performance even in adverse conditions. The protocol will automatically adjust to continue service even if the signal is corrupted by interference.

Security of the wireless operation is provided by several features. The wireless systems employ a proprietary direct sequencing modulation technique that is unique to vendor. In addition, WEP and/or VPN can be invoked for added encryption security. The alignment of towers and radio links also mean an intruder would have to go to great lengths to obtain line of sight of the signal itself.

Wireless installations will be fitted with lightning arrestors, UPS systems, and remote monitoring power and environment managers. Equipment will be SNMP manageable and monitored on a 24x7 basis. Spare parts stores are maintained sufficient to meet needs for advance replacement. Equipment repair dispatching will be available on a 7 day per week basis if the customer can provide access to facilities. SEND has implemented a work-order tracking system, but more importantly, live technical support is available at any time through office support or paging after hours.

GENERAL SERVICES PROVISIONS (ALL OPTIONS)

Internet Access provides the individual customer with a variety of Internet services

A. Comprehensive Mail Management Service:

Customers can assign one or more persons to be the mail account administrators who can add new email accounts for the customer, update the individual email account information, change the email account password, and delete the individual email account. Individual users can change passwords and perform lookups of other mail users.

Mail service is offered as a POP3 service where mail host servers reside at the ISP and the user

downloads mail with each login. Once downloaded, the mail is cleared from the server. Mail service is also offered as Web-based service where each user maintains mail on the server and accesses mail through a Web browser. Mail may be left on the server, or downloaded to the user machine.

B. WWW Service:

Provides world wide web page hosting for the individual customer in the pre-defined directories on the Internet server. Each user who has email account can post a professional home pages by a FPT of the web page into his home directory of the Internet server. The WWW Server provides automated web logging.

Selected users can write their own CGI programs with some restrictions due to security issues. The Common Gateway Interface (CGI) is a standard for interfacing external applications (CGI programs) with the web server. A CGI program can be written in C/C++, PERL, and any UNIX shell and is executed in real-time, so that it can output a dynamic active web page. The server provides access to PostgreSQL database engine. PostgreSQL is an SQL (Structured Query Language) relational database management system.

All users can create their dynamic web pages with PHP3. PHP (Professional Home Page) is a server-side HTML embedded scripting language that lets you write simple scripts right in your HTML file. The goal of the PHP3 is to provide an extremely powerful and fast alternate to CGI programming by allowing end users to create dynamically generated pages quickly. In addition, PHP3 supports embedding PostgreSQL SQL queries directly in the HTML files, so it allows end users to build web database applications like guest book easier and faster.

The system supports Microsoft FrontPage extensions for 1999 – 2002 series code generators.

C. Domain Names Service:

Provides domain name service for the servers of the customer such as the ftp servers and web servers. Customers can name their own servers as long as the host names are unique in the domain **sendtech.net** in the following convention:

xxxxxxx.sendtech.net
where xxxxxxx is the host name of the server.

Additionally, the DNS supports hosting of virtual domains. The ISP will register and support the public domain for any customer as part of regular service. SEND Technologies is responsible for maintenance of the "k12.la.us" domain for State of Louisiana school districts and will provide changes for any school in the State.

D. Common TCP/IP Application Services:

TELNET, FTP, AND POP services are all supported.

The Routing servers provide the individual customers with a variety of security and Internet services:

1. IP Addressing

The server circumvents the official IP address shortage and protects the private customer networks from the public (Internet) network. The ISP servers implement the IP Masquerade feature that enables the computers behind the firewall to reach the Internet, even though they have no official assigned IP addresses. The security of a masquerading stateful inspection service is much better than a packet filter based service.

2. IP Network Address Translation

The ISP servers provide the incoming connections from the Internet to the customer's (WEB, FTP and etc) servers which are located behind the ISP. The ISP servers implement Static NAT (Network Address Translation) that create a one-to-one mapping of unregistered server IP address to a official registered IP address, so that outside incoming connection can be established to the internal servers. The effect of the design is to conserve scarce registered IP addresses and provide for very easy network expansion for the customer.

3. Domain Name Service

The system provides a secondary and internal Domain Names Service.

4. Web Cache

The ISP service provides global web caching service. The effect of this service is to minimize the number of times that a WEB based application must traverse the INTERNET. In common practice, web caching will reduce INTERNET traffic by 60% to 70%. Please note that global web caching is a function at the ISP to provide better performance, the district is not provided with internal web cache servers.

5. Internet Content Filtering

Internet content filtering is now a legislated requirement for many institutions. SEND utilizes the SmartFilter server-based filtering system for all users in the network with comprehensive reporting and security. The service will provide for filtering on the three principles of subscription service table updates, site rating, and keyword search. Please note that this service is not implemented as a value-added service for the customer, but it provided as part of the ancillary, integrated services of SEND. The service does not have to be utilized by the customer.

Additionally, each customer will be allowed to select from a variety of methods and filtering options. First, the customer may elect not to have filtering on a particular location, or on specific computers within a location. In such a case, the only action required by the customer will be to inform the provider which address(e's) are to be exempted.

Second, the customer may elect to implement filtering at the local site level. In such a case, the actions required will be to inform the provider which address(e's) are to be exempted. The customer will also install the filtering software on the local server(s), program the local machines, and maintain the filtering services. Additional license costs may be incurred by the customer under this option.

Third, the customer may elect to allow the ISP to implement filtering at the ISP level and manage updates from a subscription service. In the third option, the customer will only have to set each computer to point to a proxy server at the ISP level. The firewall service of SEND will not allow users to disable the proxy service and bypass the content filtering features. In a similar manner, TELNET, FTP, and related programs will not be able to bypass the content filtering features.

In all cases, management reporting features will allow the customer to monitor attempts to access unacceptable sites and custom table features will allow a supervisor to grant override access to sites the subscription service tagged inappropriate.

Please note Internet content filtering is not be eligible for ERATE funding and is priced separately.

E. NETWORK SUPPORT

The district has requested the Internet vendor to be a single point of service providing end to end service from the Internet to each school. Under this request, the vendor will provide and be responsible for all equipment, services, maintenance and installation necessary for Internet operation.

SEND is capable of providing all required services. The cost of network support of the site routers is included in the basic monthly charge for Internet services. SEND will provide ongoing internet support for the customer to program, troubleshoot, and monitor the network operation with the Internet services. With this service, SEND will provide help desk support for internet users in normal operations as requested. In the event that the customer requests on-site services for non-eligible hardware maintenance or local programming support, normal time and materials would be assessed.

F. ISP SERVICES

SEND is currently providing services in Monroe through a DS3 link direct to the UUNET

backbone in Dallas. SEND also maintains secondary routing capability in case UUNET services are not available. SEND will provide costs under the options described for the district.

G. Company Service and Support

When evaluating networking services such as the INTERNET, there are several components of service and cost to be considered. The most basic element of service is actual access to a network provider Point-of-Presence (POP) so that your customers and staff can reach outside the local site. If the customer chooses to route all traffic through a single POP such as in the local customer office, the customer assumes all responsibility for support of the network and all services beyond the demark point of the customer office.

The second service to be considered is programming and support for the network within the customer network itself. The programming and support involves managing the Bell FlexService, Frame Relay, or other service lines, programming and troubleshooting routers at the central office and/or customer site level, and networking software support at the customer site level. Each customer must assume these services as the typical POP service provider does not offer these service as part of the current networking package unless the customer purchases a separate POP for each location served.

The third service to be considered is providing network server support for users within the customer organization. For users to be able to function within the INTERNET, the customer must have server support for operating functions such as address assignments and translations, mail routing and storage, file transfer services, and WEB page and even optional filtering service and support. Perhaps the most important aspect of this type of service support is that it is changing daily with new operating systems, networking software, and communications protocols. Each customer must assume these services for users within the respective organization.

The technicians and analysts associated with SEND have developed an expertise based on over 15 years of commitment to networking design and implementation of services. These services involve IBM and Macintosh computers operating over a variety of network protocols, connecting to Novell, NT, and UNIX operating systems. Routing equipment for the provider is the newest line of Nortel and Cisco equipment which is capable of supporting substantial traffic. The networking file servers are Dell PowerEdge Network Servers with equipped with power, memory, and disk redundancies. Major applications of electronic mail, file transfer and WEB services are supported and the systems are available 24 hours per day, with down time only for routine maintenance. The professional staff of the organization are supported by contract analysts and backup support from Nortel Networks. Training support, if needed, is available direct from the organization and through contract support.

SEND is standardized on Nortel Networks and Cisco routers for management and programming support. The company supports Intel-based servers under the Windows NT/2000 operating system for customer network support. In addition, the company will provide general technical

software support for the Mac, Windows 3.11, Windows 95, and Windows NT end node IP stack software. The variables involved in the cost of INTERNET service include the number of connections, type of line services, and the degree of network support desired.

TECHNICAL AND MANAGERIAL STAFF

Mark Stevenson – President
Education – BBA/Accounting; MBA
Work History – Interned at ULM in Computer Center (MBA); employed 15 years at Ouachita Parish School Board established computing center and all administrative and academic computing services at district; employed 8 years at Monroe City School Board implemented 6 million dollar technology program linking 20 schools and over 3,000 network points; State evaluator for DANS, CBTF, TLCF programs; extensive technology consulting in wholesale, financial, insurance and related industries.

Tze Hung Sit (Albert) – Vice President – Technical Services
Education – BS/Civil Engineering; BS/Computer Science; MS/Computer Science
Work History – Employed 10 years at Ouachita Parish School Board, established WAN and programming services at district; employed 10 years at Monroe City School Board designing and implementing model networking programs; extensive corporate consulting designing in wholesale, financial, insurance and related industries; primary systems designer for SEND Technologies Internet and WAN services.

Bobbye Earle – Vice President – Customer Relations
Education – BS – Medical Technology; MED – Education Guidance & Counseling
Related Certifications – Chemistry, Biology, Science, Counseling, Instructional Supervisor, Parish Superintendent; Certified Evaluator; State Notary
Work History – Employed 15 years as technical sciences teacher; State DOE Administrative Officer 7 years; Instructional Supervisor and Technologist Union Parish 16 Years; primary contact for SEND Technologies customer relations and support.

Kim Smalling – Accountant
Education – BA/Accounting; MBA
Related Certifications – Lasbo CSBO; State Notary
Work History – Employed 22 years in Ouachita Parish and Monroe City as Chief Accountant responsible for over $50 million per year in budget covering over 50 funds; responsible for general accounting.

Teresa Edwards – Customer & Instructional Support
Education – BS/Pre-Medicine Biology; ME/Biology/Math; 60+ Graduate hours
Work History – Employed over 20 years as teacher and Technology Coordinator in private school sector; ULM Instructor in Science/Education, employed 2 years at SEND Technologies; implemented TLCF & LEARN video conferencing/teacher training programs serving over 400 teachers, primary trainer and customer support for educational

Internet systems.

Mary Hoff – Customer Support
Work History – Employed 30 years in Ouachita Parish and Monroe City providing end user support; employed 3 years at SEND Technologies providing general end user support.

Michael Boudreaux – Technical Staff
Education – BS/Computer Science
Work History – Employed 3 years at Monroe City as computer and network technician; employed 4 years at SEND Technologies; primary technical support for email, proxy, firewall, filtering, and related services.

D.L. Bosworth – WAN Engineer; Technical Staff
Education – BS/Electrical Engineering
Work History – Employed 4 years at SEND Technologies as primary WAN/Internet engineer and in-house Internet support; responsible for over 200 routed sites.

Wayne Kairdolf – Wireless Engineer; Technical Staff
Education – BS/Electronics Engineering; BBA/Accounting
Related Certifications – CNE (Wireless); CCNA; MCSE; MCP; A+ Certified
Work History – Employed 4 years in various wireless engineering roles; designed and implemented Northeast Net and Bayou Internet wireless networks; various wireless networks for colleges and universities; primary researcher and wireless network designer for SEND Technologies.

Tom Robinson – Internet Network Design & Sales
Work History – Employed over 20 years in various telco roles; designed and implemented the original LANET network for State of Louisiana including all wireline and wireless components; Louisiana State Manager for Network Telephone integrating voice and data products, primary field research and sales contact for SEND Technologies.

Matt Sanches – Technical Staff
Education – BS/Computer Science
Work History – Employed 4 years at Monroe City providing network support services; employed at SEND Technologies 4 years providing inhouse and field support for all Internet installation and support services.

Chad Ford – Technical Staff
Education – BS/Computer Science
Work History – Employed with SEND Technologies for three years providing field support for Internet, video conferencing, and related services; worked with LEARN project for implementation of all IP video services.

John Grissom – Technical Staff
Related Certifications – A+ Certified; (Wireless) Tower Certified; Novell CNA; LAN/WAN certified.
Work History – Experience through various groups in LAN/WAN services for 10 years; Employed at SEND Technologies two years providing field support for Internet services.

Marcus Reed – Technical Staff
Education – BS/Computer Science (Spring, 2003)
Work History – Employed at SEND Technologies two years supporting video conferencing, Blackboard, WEB development, network troubleshooting.

William Ayers – Technical Staff
Related Certifications – A+ Certified, MCSE
Work History – Employed over 20 years in industry; last 7 years with Time Trend supporting school networks; employed with SEND Technologies 1 year providing field support for networks.

James Farrar – Wire Services Installation
Work History – Employed 2 years at SEND Technologies; trained and proficient in CAT 5 and fiber installation.

Steve Fife – Wire Services Installation
Work History – Employed 1 year at SEND Technologies in CAT 5 installation.

CUSTOMER REFERENCES

The following schools are reference customers of SEND Technologies. All districts except two schools with all T1 lines either in star configuration or direct to SEND.

District	Schools	Students
Bienville Parish Schools	9	2605
Caldwell Parish Schools	6	1907
Catahoulla Parish Schools	10	1920
Claiborne Parish Schools	11	2881
Concordia Parish Schools	10	3968
DeSoto Parish Schools	13	5099
Franklin Parish Schools	9	3387
Jackson Parish Schools	7	2595
Lincoln Parish Schools	15	5926
Madison Parish Schools	7	2608
Morehouse Parish Schools	15	5452
Richland Parish Schools	11	3810
Tensas Parish Schools	4	895
Webster Parish Schools	22	7785
Winn Parish Schools	8	2976
TOTALS	**157**	**53,814**

Nexus System, Inc.
P. O. Box 2375
West Monroe, LA 71294-2375
Phone # 318-651-8282
Fax # 318-998-6953

Invoice

Date	Invoice #
8/10/2004	1026

Bill To

Winn Parish School District
304 E. Court St.
Winnfield, LA 71483
Attn: Jan Anyan

P.O. No.	Terms	Project
	Due upon receipt	

Quantity	Description	Rate	Amount
2	Winn - ISP Service Charges: $4,290.00 per month billed @ 18% with 82% billed to SLD	772.20	1,544.40
	YEAR 7: 2004-05		
	471: 427753 FRN: 1202868		
	Internet: July & August 2004		

Jan Anyan

Vendor #- 18255 Inv #- 1026
Inv Amt- 1,544.00 Inv Date- 8-10-04
Due Date- 8-13-04 P/O #-
G/L #- 001 610 1100.01
Message-

Total $1,544.40

Please make check payable to Nexus Systems, Inc.

Nexus System, Inc.
P. O. Box 2375
West Monroe, LA 71294-2375
Phone # 318-651-8282
Fax # 318-998-6953

Invoice

Date	Invoice #
10/1/2004	1098

Bill To

Winn Parish School District
304 E. Court St.
Winnfield, LA 71483
Attn: Jan Anyan

P.O. No.	Terms	Project
	Due upon receipt	

Quantity	Description	Rate	Amount
1	Winn - ISP Service Charges: $4,290.00 per month billed @ 18% with 82% billed to SLD	772.20	772.20
	YEAR 7: 2004-05		
	471: 427753 FRN: 1202868		
	Internet: October 2004		

Jan Anyan

Vendor #- 18255 Inv #- 1098
Inv Amt- 772.20 Inv Date- 10-1-04
Due Date- 10-8-04 P/O #-
G/L #- 001 610 1100.01
Message-

Total $772.20

Please make check payable to Nexus Systems, Inc.